Fact Sheet
September
2003

Update on Perchlorate Investigation in Simi Valley

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Bathtub Well-1 being sampled at Brandeis Bardin Institute

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. The Department's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

INTRODUCTION

In 1999 perchlorate was found in shallow non-drinking wells in Simi Valley. Shortly thereafter, DTSC became involved in an extensive program to sample soil, wells, springs and surface water drainages in key locations throughout Simi Valley. We sent a fact sheet out in December, 2002 to inform the community about the most recent findings and to provide contact information to the community to address any further questions. We are now providing an update on what we have learned since then, what is currently being done, and agency roles in future investigations. As the investigation progresses and more data become available, additional fact sheets will be provided.

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.dtsc.ca.gov.

DTSC's ROLE AT SSFL

The Department of Toxic Substances Control (DTSC) is the lead agency responsible for overseeing the cleanup of hazardous chemicals at the Santa Susana Field Laboratory Site (SSFL). Currently the site is owned by the Boeing Corporation. *The U.S. Department of Energy (DOE)* and *Los Angeles Regional Water Quality Control Board (RWQCB)* also have roles in the cleanup at the site. DOE oversees the cleanup of radioactive waste. Los Angeles RWQCB issues and enforces surface water discharge that leaves the site.

The first step in DTSC's cleanup process is to characterize the site. To do this we must have a clear understanding of what chemicals exist onsite, the levels at which they exist, where they exist, and how they interact with the geology of the site. Afterwards cleanup alternatives will be available for public comment, and a final remedy will be selected. As new information becomes available, DTSC can decide to require interim measures. That is, if there is any immediate threat to the health of humans or the environment, an immediate action may proceed without yet having determined what the long-term solution will be.

DTSC'S PERCHLORATE INVESTIGATION

What Perchlorate Is

One of the chemicals found onsite is perchlorate. Perchlorate is a white or colorless powder that can dissolve easily in water. Many industries use perchlorate to make products such as explosives and solid rocket fuel. Though it has not been linked to cancer in humans, exposure to perchlorate could affect a person's ability to process iodine in the thyroid gland. The most likely way you can be affected by it is if you drink water contaminated with perchlorate at levels higher than what is considered safe. You are not likely to be affected through breathing air or through touching soil that has perchlorate in it. No state or federal drinking water standard—also called a maximum contaminant level (MCL)—exists for perchlorate. The Department of Health Services (DHS) will reportedly be adopting an MCL soon. Until an MCL is in place, DHS uses a four part per billion (ppb) advisory action level. Current data suggest that U.S. EPA may adopt a cleanup goal of one ppb. Meanwhile, other states are using "advisory levels" ranging from one to 18 ppb.

DTSC Became Involved in the Perchlorate Investigation Offsite

After perchlorate was detected in Simi Valley, DTSC in coordination with Los Angeles Regional Water Quality Control Board (RWQCB), and the City of Simi Valley began a more extensive investigation. Since perchlorate contamination has been identified at SSFL, DTSC's offsite investigation has been looking at potential migration pathways to see if SSFL might be the source of the offsite contamination.

Historical Findings

DTSC is regularly monitoring wells and testing soil and water for perchlorate. Perchlorate is found on SSFL and has also been detected in some non-drinking water wells throughout Simi Valley. A single soil sample and a monitoring well in the canyons around SSFL have had detections of perchlorate, but these results have not been able to be reproduced in later samples. For a more detailed explanation of the locations perchlorate has been found, see page 5. These results have also been available to the public at public meetings held in Simi Valley.

Recent Findings

Brandeis Bardin Institute - Recent sampling has resulted in new perchlorate detections at a well about one mile north of the SSFL site on the Brandeis Bardin Institute. This property is used as a summer camp for adults and children. Water from the well has been accessible to horses on the property, but is not used for drinking water to people. Currently a fence surrounds the well.

- On February 21st Ventura County sampled Bathtub Well-1, an artesian well approximately 300 ft. in depth, on property owned by Brandeis Bardin. Their results initially indicated perchlorate present at 82 ppb.This well is shown as the Brandeis well on the map on p.4.

- On May 28th DTSC learned of these results, and on May 30th collected two samples from the same well. The results indicated perchlorate present at 140 and 150 ppb.

- On June 11th DTSC resampled four wells on the Brandeis Bardin property. (Bathtub Well-1, Bathtub Well-2, and wells OS-1 and OS-2) The results indicated perchlorate present only at Bathtub Well-1. Of the four samples collected from this well, two samples were submitted to an independent lab which gave results of 36 and 39 ppb. Two samples were sent to DTSC's lab for quality control measures, and were found to be non-detect.

- On July 16th the lab that analyzed the initial February 21st sample revised their original report. The sample result changed from 82 ppb to non-detect, due to a quality control error. The original sample was unfortunately disposed of, and a confirmatory test could not be conducted.

- DTSC's lab re-analyzed the samples collected in May and June. We confirmed the perchlorate detect in May's sample. The independent lab that received the June perchlorate detects sent us their water samples. We re-analyzed all four June samples. We confirmed the detection of perchlorate in the samples from the independent lab and the absence of perchlorate in the samples originally analyzed by our lab. All four samples were sent to a third lab which uses a different perchlorate test method. This third lab confirmed two samples have perchlorate and two do not. In other words, three labs using two testing methods concluded that two of four samples taken at the same time have perchlorate. The reason for this variability is still unknown.

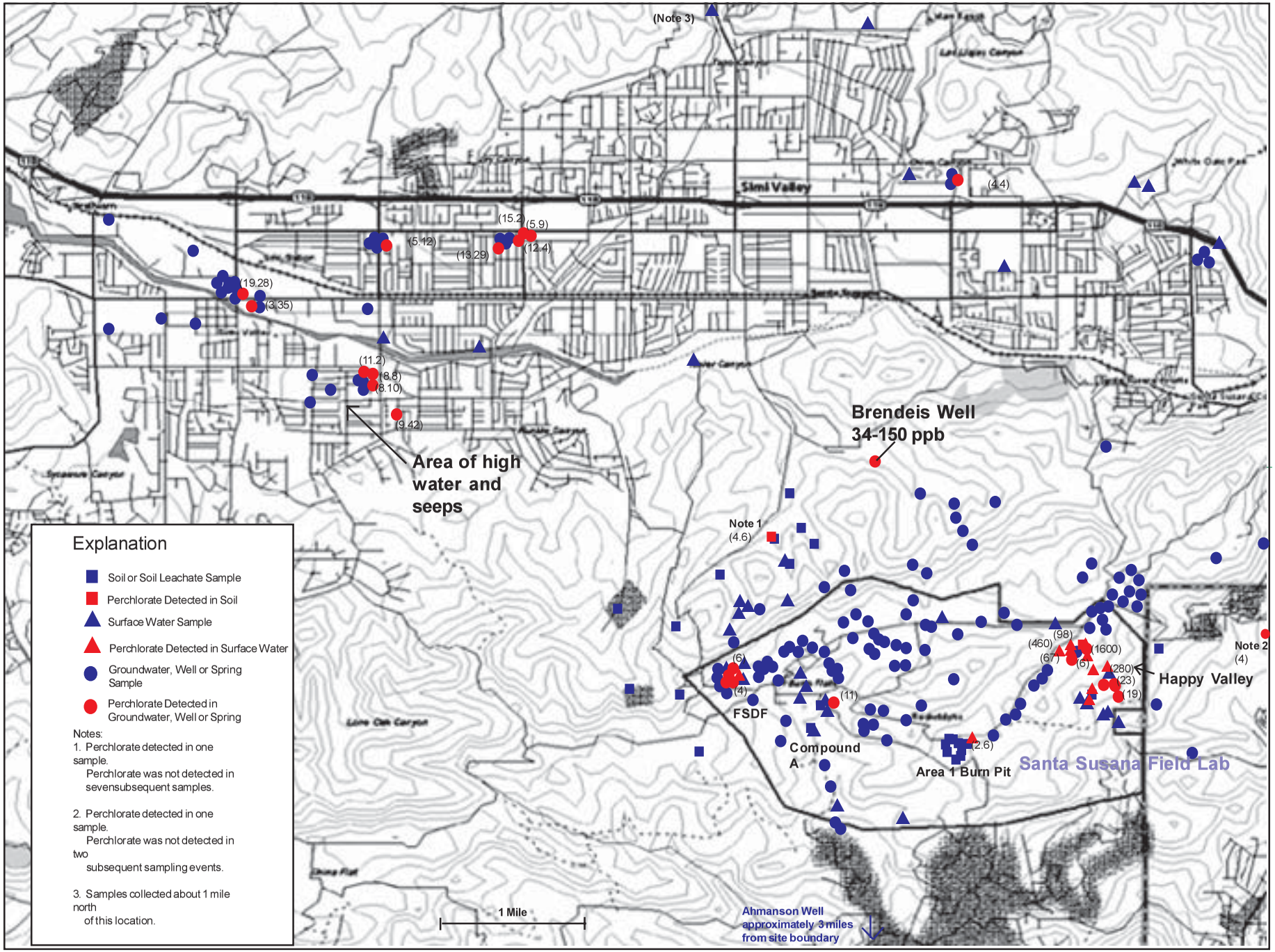
Simi Valley – DTSC was asked by the City of Simi to sample surface water seeping into lawns and sidewalks on Caballero, Wallace, and Waltham Streets in southwest Simi Valley, where there was high groundwater. Six samples were collected May 21st. Low detects of perchlorate were reported in two of the six samples at 4.1 ppb (Wallace Street) and 4.8 ppb (Caballero Street). DTSC has reported these results to the City of Simi Valley and to the Regional Water Quality Control Board.

HOW DTSC IS PROCEEDING

The most recent findings at Bathtub Well-1 suggest that perchlorate contamination from SSFL may be linked to the Brandeis Bardin property. Still, there is not enough data at this point to conclude a pathway between perchlorate on SSFL to either Brandeis Bardin or Simi Valley. To further our investigation, DTSC issued a letter on June 23rd to Boeing directing them to submit a workplan to us. The workplan is intended to determine how perchlorate got into the Bathtub Well-1 and its source. We received the workplan on August 18th and are currently reviewing this workplan for adequacy and completeness.

Prior to learning of the perchlorate results on the Brandeis Bardin property, DTSC directed Boeing to submit a workplan to us describing measures they will take to clean up soil contamination at Building 359 and Happy Valley where the highest concentrations of perchlorate are found in soil and groundwater onsite. DTSC received the workplan, called the Happy Valley Interim Measures Workplan, on June 16th and is currently reviewing it.

Perchlorate Sample Results



WHERE PERCHLORATE HAS BEEN FOUND

Santa Susana Field Laboratory (SSFL): Perchlorate-containing wastes were treated at SSFL in the 1950s through 1990. There are several areas where perchlorate has been found. Two areas, the Former Sodium Disposal Facility and Compound A, are the closest (about 3 miles) to Simi Valley and the Ahmanson well, respectively. A third area, Happy Valley, is located on the east side of SSFL and was used to test propellants. A fourth area located on the southeastern side of SSFL, referred to as the Sodium Burn Pit, was used for destruction of hazardous wastes. About 1,600 cubic yards of chemically impacted soils were removed from this area during cleanup activities in 1981.

Areas surrounding SSFL: DTSC has conducted extensive sampling in the canyons, natural springs, and wells located in the undeveloped areas surrounding SSFL. One soil sample collected from Meier Canyon (located on the north side of SSFL) had a reported detect of 4.6 ppb perchlorate. This detect could not be duplicated following re-anaylsis of 60 lbs. of soils from this location.

Simi Valley: Fifteen out of 66 wells sampled in Simi Valley by DTSC and the Los Angeles RWQCB have detected perchlorate. The majority of detects are scattered within Simi Valley in wells at depths of less than 20 feet. Concentrations of perchlorate range from 4 to 19 parts per billion (ppb). Detections were first discovered in Simi Valley in 1999. Two municipal water supply wells are located in the central part of the city, **neither of which have perchlorate**. On June 11th the City of Simi Valley requested DTSC to sample standing water located on Caballero, Waltham, and Wallace Streets. Two of the six samples collected showed detects of perchlorate at 4.1 and 4.8 ppb.

Perchlorate has not been detected in the drinking water supplied to the City of Simi Valley. If you have questions about your drinking water, please contact either of the two water purveyors listed on page 6.

Brandeis Bardin Institute: Bathtub Well-1 on the Brandeis Bardin Institute property, located directly northwest of the SSFL property, has had recent detections of perchlorate. Confirmed sample results range from 30 to 150 ppb as well as non-detect.

Ahmanson Well: In August 2002, a deep well (referred to as Well M-1) located on the Ahmanson Ranch was sampled by Rincon Consultants on behalf of Ventura County. The sample was collected as part of the supplemental Environmental Impact Report for the proposed Ahmanson Ranch development.

- Four samples were taken at three different depths from the well. Three of the four samples did not have perchlorate. One sample taken at a depth of 550 ft. had 28 ppb of perchlorate.
- Samples taken at the same time and at the same depths by Psomas, acting as consultants for Ahmanson development, did not have perchlorate, including the sample taken at the 550-foot depth.
- One additional sample collected by Psomas at a depth of 550 ft. in July, 2002 was also non-detect for perchlorate.
- RWQCB re-sampled the well on June 17th and on July 16th to resolve the uncertainties associated with the analytical results. Perchlorate was reportedly not present in these samples.

RECENT COMMUNITY INVOLVEMENT

On July 15th DTSC held a public meeting to give the community the opportunity to talk with DTSC's director, Edwin Lowry. DTSC is summarizing the questions posed at that meeting, and is putting together a fact sheet to include those questions and responses to them. DTSC will mail this fact sheet to all participants who attended the meeting.

If you did not sign the sign-in sheet at the meeting but would like to receive this fact sheet, please contact: Lora Barrett, DTSC Public Participation Specialist, toll-free at (866) 495-5651 or by email at Lbarrett@dtsc.ca.gov.

WHO TO CONTACT FOR FURTHER INFORMATION

Further investigation is being done by two agencies: RWQCB and DTSC.

Department of Toxic Substances Control is the lead agency for assessment and cleanup of chemicals in soil and groundwater at SSFL. DTSC will continue to coordinate sampling efforts – both on SSFL and offsite with the Los Angeles RWQCB to evaluate all potential sources of perchlorate. If you have questions of DTSC, you may contact either of the following people:

Lora Barrett, Public Participation Specialist
toll-free (866) 495-5651 or
Lbarrett@dtsc.ca.gov

Gerard Abrams, Project Manager
(916) 255-3600 or Gabrams@dtsc.ca.gov

For media inquiries please call:
Jeanne Garcia, Public Information Officer
(818) 551-2176 or Jgarcia1@dtsc.ca.gov

Los Angeles Regional Water Quality Control Board (RWQCB) is the responsible agency for overseeing protection of surface and ground water, and investigating potential sources of pollution in Simi Valley and Ahmanson Ranch. They are the lead for re-testing the groundwater from the Ahmanson well. If you have questions of this agency you may contact either of the following people:

Stephen Cain, Sr. Environmental Planner
(213) 576-6694 or scain@rb4.swrcb.ca.gov

David Bacharowski, Assistant Executive Officer
(213) 576-6607 or dbacharo@rb4.swrcb.ca.gov

Simi Valley Public Works
Bobby Wheeler, Deputy Dir. Water Works Services
(805) 579-7115

Southern California Water Company
John Brady, District Water Quality Engineer
(800) 999-4033 or on the web www.aswater.com

WHERE TO FIND MORE SSFL INFORMATION: You may review documents at these locations:

California State University, Northridge
Attn: Robert Marshall (818) 677-2832
Urban Archives Center
Oviatt Library, Room 265 (West Wing)
18111 Nordhoff Sreet
Northridge, CA 91330-8329

Hours of Operation:
M-F: 9:00am - 4:30pm

Los Angeles Public Library – Platt Branch
Attn: Janet Metzler (818) 340-9386
23600 Victory Hills Blvd
Woodland Hills, CA 91367

Hours of Operation:
M,W: 10:00am – 8:00pm
TU, TH: 12:00pm – 8:00pm
F, SAT: 10:00am - 6:00 pm

Simi Valley Library
Attn: Dale Redfield (805) 526-1735
2969 Tapo Canyon Road
Simi Valley, CA 93063

Hours of Operation:
M–TH: 11:00am – 9:00pm
F, SUN: 1:00pm – 5:00pm
SAT: 10:00am – 5:00pm

DTSC Regional Records Office
Attn: Jone Barrio (818) 551-2886
1011 N. Grandview Avenue
Glendale, CA 91201

Hours of Operation:
M – F: 9:00am – 5:00pm